

20.(New) The system of claim 19, wherein the electrical supply includes an electrical generator adapted to supply electricity.

21.(New) The system of claim 19, wherein the storage includes a regenerator adapted to generate electrical energy either directly or indirectly from the storage compound.

22.(New) The system of claim 21, wherein the regenerator includes a fuel cell or a generator for the generation of electrical energy directly from the storage compound.

23.(New) The system of claim 21, wherein the regenerator includes a further reactor adapted to convert the storage compound back into hydrogen and includes an electrical generator adapted to generate electrical energy from the hydrogen.

24.(New) The system of claim 19, wherein the storage includes a vehicle storage and an internal combustion engine connected to the vehicle storage.

25.(New) The system of claim 19, wherein the storage compound is one selected from a group consisting of a C₁₋₈ alcohol, a Fischer-Tropsch liquid, Mobil gasoline, a C₁₋₈ acid, a C₁₋₈ - aldehyde, a C₁₋₈-ether and a C₁₋₈-hydrocarbon.

26.(New) The system of claim 19, wherein the storage compound includes methanol.

27.(New) The system of claim 19, wherein the electrolyzer includes a dryer adapted to dry the hydrogen.

28.(New) The system of claim 19, wherein the electrolyzer includes a solar photovoltaic adapted to supply electrical energy.

29.(New) A system for the storage of hydrogen, comprising:

~~a first reactor adapted to react hydrogen with carbon dioxide to form a storage compound;
a storage connected to the reactor and adapted to store the storage compound; and
a second reactor connected to the storage and adapted to convert the storage compound
back into hydrogen.~~

30.(New) The system of claim 29, wherein the first reactor includes a hydrogen source and a carbon dioxide source.

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31.(New) A system for the production and storage of hydrogen, comprising:
an electrolyzer adapted to electrolyze water to generate hydrogen;
a carbon dioxide source;
a first reactor connected to the electrolyzer and the carbon dioxide source, the first reactor being adapted to receive hydrogen generated by the electrolyzer, the first reactor being adapted to react hydrogen with carbon dioxide to form a storage compound;
a store connected to the reactor and adapted to store the storage compound; and
a second reactor adapted to receive the storage compound from the store and adapted to convert the storage compound back into hydrogen.

32.(New) The system of claim 31, wherein the electrolyzer includes a water source and a hydrogen source.

33.(New) A system for the storage of electrical energy, comprising:
an electrolyzer adapted to be connected to a water supply and an electrical supply, the electrolyzer being adapted to provide electrolysis of water to generate hydrogen;
a reactor connected to the electrolyzer and adapted to receive hydrogen from the electrolyzer, the reactor being adapted to receive carbon dioxide, the reactor being adapted to reaction hydrogen with carbon dioxide to form a storage compound;
a storage connected to the reactor and adapted to store the storage compound; and
a control connected to the electrolyzer, the reactor and the storage and adapted to